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EXAMINER	
BARQADLE, YASIN M	

ART UNIT	PAPER NUMBER
2153	5

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/681,844	Applicant(s) VETRIVELKUMARAN ET AL.	
	Examiner Yasin M Barqadle	Art Unit 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Response to Amendment

1. The amendment filed on October 30, 2003 has been fully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5,7-12,15-22,28-33 and 38-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raz et al US. Pub. (20020138640) in view of Bittinger et al USPN (5859971).

As per claim 1,15 and 28, Raz et al teach a method, machine-readable medium and a computing device for executing an application program comprising:

caching a cacheable component (Fig. 2, 130) of the application program (Fig.2, 120) received from an original computing device (Fig. 2, 110) [abstract and Page, 3, paragraphs 0032];

receiving a request, the request for executing a component of the application program;

determining whether or not the request relates to the cacheable application program component that has been cached [Fig. 1 shows Server 110 receiving requests from downstream devices for application program 120, Page 3, paragraphs 0032 and Page 4, paragraphs 0037-0038];

directing the request to the cacheable application program component in response to a determination that the request relates to the component that has been cached [Fig. 3; Page 3, paragraphs 0032 and Page 4, paragraphs 0037-40]; and,

otherwise, passing the request to another computing device [Page 3, paragraphs 0032 and Page 4, paragraphs 0043-0045].

Although Raz et al shows substantial features of the claimed invention, he does not explicitly show an internal intercepting component of another computing device, the internal intercepting component capable of intercepting the request when it is internal to the another computing device and redirecting the request.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Raz et al, as evidenced by Bittinger et al USPN. (5859971).

In analogous art, Bittinger et al whose invention is a method for reducing the data transmitted over an external communication link from a first application resident in a first computer to a second application resident in a second computer

and storing a data stream from the first application to be provided to the second application in response to a request from the second application in a cache resident in the first computer, disclose an internal intercepting component of another computing device, the internal intercepting component capable of intercepting the request when it is internal to the another computing device and redirecting the request [fig. 2, client side intercept 30 and server side intercept 40, Col. 13, lines 20 to col. 14, line 14. see also col. 3-51].
Giving the teaching of Bittinger et al, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Raz et al by employing the system of Bittinger et al in order to minimize the amount and frequency of communication required over a communication link [abstract and col. 7, lines 52-67].

As per claim 2, Raz et al teach the method of claim 1, wherein the cacheable application program component constitutes the only component of a cacheable application program, such that the cacheable application program is wholly cached by caching the cacheable application program component [Page 4, paragraphs 0037 and paragraph 0049].

As per claim 3, Raz et al teach the method of claim 1, wherein caching the cacheable application program component comprises:

downloading one or more installation files for the cacheable

application program component from the original computing device [Page 4, paragraphs 0037-0040]; and,

installing the cacheable application program component onto the caching computing device by utilizing the one or more installation files [Page 4, paragraphs 0037-0040 and Page 7, paragraphs 0061].

As per claim 4, Raz et al teach the method of claim 1, wherein the steps of caching, receiving, determining, directing and passing are performed by a caching computing device, and directing the request to the cacheable application program component that has been cached comprises executing the application program component by the caching computing device for a client computing device in lieu of execution by the original computing device for the client computing device [Page 2, paragraphs 0016-0017].

As per claim 5, Raz et al teach the method of claim 4, wherein the request is passed to the original computing device, and the method further comprising:

receiving the request by the original computing device, as has been passed by the caching computing device [Page 4, paragraphs 0043-0044]; and,

executing the application program component by the original computing device for the client computing device [Page 2, paragraphs 0016-0017].

As per claim 7, Raz et al teach the method of claim 6, wherein caching the cacheable application program component at the caching computing device comprises:

downloading one or more installation files for the cacheable application program component by the caching computing device from the original computing device [Page 4, paragraphs 0037-0040]; and,

installing the cacheable application program component at the caching computing device by the caching computing device, utilizing the one or more installation files [Page 4, paragraphs 0037-0040 and Page 7, paragraphs 0061].

As per claim 8, Raz et al teach the method of claim 1, wherein the steps of caching, receiving, determining, directing and passing are performed by a client computing device, and directing the application program component request to the cacheable application program component that has been cached comprises executing the application program component by the client computing device for itself [Page 2, paragraphs 0016-0017 and paragraphs 0025-0026].

As per claim 9, Raz et al teach the method of claim 8, wherein the request is passed to the original computing device, and the method further comprising:

receiving the request by the original computing device [Page, 3, paragraphs 0032 and Page 4, paragraphs 0037-0038]; and

executing the application program component by the original computing device for the client computing device [Page 4, paragraphs 0043-45].

As per claim 10, Raz et al teach the method of claim 8, wherein the request is passed to a caching computing device, and the method further comprising:

receiving the request by a caching computing device [Page, 3, paragraphs 0032 and Page 4, paragraphs 0037-0038];

determining by the caching computing device whether the request relates to a cacheable application program component that has been cached by the caching computing device [Page 3, paragraphs 0032 and Page 4, paragraphs 0037-0038];

directing the application program component request by the caching computing device to the cacheable application program component that has been cached by the caching computing device in Response to determining that the request relates to the component that has been cached by the caching computing device [Page 3, paragraphs 0032 and Page 4, paragraphs 0037-40]; and

otherwise, passing the application program component request by the caching computing device to the original computing device [Page 3, paragraphs 0032 and Page 4, paragraphs 0043-0045].

As per claim 11, Raz et al teach the method of claim 10, wherein directing the application program component request by the caching computing device comprises executing the application

program component by the caching computing device for the client computing device in lieu of execution by the original computing device for the client computing devise [Page 2, paragraphs 0016-0017].

As per claim 12, Raz et al teach the method of claim 10, further comprising subsequent to passing the application program component request by the caching computing device to the original computing device:

receiving the request by the original computing device, as has been passed by the caching computing device [Page 3, paragraphs 0032]; and,

executing the application program component by the original computing device for the client computing device [Page 2, paragraphs 0016-0017].

As per Claim 15 and 28, Raz et al teach a machine-readable medium and a computing device with similar limitations as claim 1 above. See the rejection made on claim 1 above.

As per claim 16 and 29, Raz et al teach the invention, wherein the cacheable application program component constitutes the only component of a cacheable application program, such that the cacheable application program is wholly cached by caching the cacheable application program component [Page 4, paragraphs 0037 and paragraph 0049].

As per claim 17 and 30, Raz et al teach the invention, wherein the computing device comprises a client computing device [Fig. 2, clients 220-240].

As per claim 18, Raz et al teach the invention, wherein directing the application program component request to the cacheable application component that has been cached comprises executing the application program component by the client computing device for itself in lieu of execution by one of a caching computing device and the original computing device for the client computing device [Page 4, paragraphs 0043-45].

As per claim 19, Raz et al teach the invention, wherein passing the application program component request to another computing device comprises passing the request to one of a caching computing device and the original computing device [Fig. 3, page 4, paragraphs 0041-49].

As per claim 20, Raz et al teach the medium of claim 15, wherein the computing device comprises a caching computing device [Fig. 2, clients 180, 190 and 200].

As per claim 21 and 31, Raz et al teach the invention, wherein directing the application program request to the cacheable application component that has been cached comprises executing the application program component by the caching computing device

for a client computing device in lieu of execution by the original computing device for the client computing device [Page 4, paragraphs 0043-49].

As per claim 22 and 32, Raz et al teach the invention, wherein passing the application program component request to another computing device comprises passing the request to the original computing device [Page 4, paragraphs 0043-49].

As per claim 33, Raz et al teach the device of claim 28, wherein the direction component comprises:

a first handler to determine whether a request comprises an application program component request for any cacheable application program component that has been cached [Fig. 3, page 3, paragraphs 0028-32 and page 4, paragraphs 0043-49];

a second handler for the application program component that has been cached [Fig. 3, page 3, paragraphs 0028-32 and page 4, paragraphs 0043-49]; and,

a third handler to receive the request from the first handler in response to the first handler determining that the request comprises an application program request for any cacheable application program component that has been cached, and to direct the request to the second handler in response to determining that the request relates to the application program component that has been cached [Fig. 3, page 3, paragraphs 0028-32 and page 4, paragraphs 0043-49].

As per claim 38, Raz et al teach a computing device comprising:

a cacheable application program component that has been cached from an original computing device [abstract and page 3, paragraphs 0025-32]; and,

a component to execute the application program component in lieu of execution by the original computing device [page, 2, paragraphs 0016-17 and page 3, paragraphs 0025-32].

As per claim 38, regarding the limitation, in response to a request, the request from an internal intercepting component capable of intercepting and redirecting the request, see the rejection and the combination made on claims 1, 15 and 28 above.

As per claim 39 and 40, Raz et al teach the device of claim 38, wherein the computing device is a client computing device, and the component to execute the application program component executes the application program component for itself in lieu of execution by the original computing device for the client computing device [page, 2, paragraphs 0016-17 and page 3, paragraphs 0025-32].

Regarding the limitation, the client device including the internal intercepting component, the internal intercepting component intercepting and redirecting the request, see the rejection and the combination made on claims 1, 15 and 28 above. As to transparent to user see Bittinger et al col. 20, 54-62].

As per claim 41, Raz et al teach a system comprising:

a client computing device communicatively connected to a network [Fig. 2]; and

a caching computing device to cache at least one cacheable application program component from an original computing device and execute the at least one component for the client computing device in response to the request, the caching computing device also communicatively connected to the network [Fig.3 and Page 3, paragraphs 0032 and Page 4, paragraphs 0037-40].

As per claim 41, regarding the limitation, the client computing device including an internal intercepting component capable of intercepting and redirecting a request, see the rejection and the combination made on claims 1, 15 and 28 above.

as per claims 42 and 44, Raz et al teach the invention, wherein any of the at least one application program components cached by the caching computing device constitute the only component of a cacheable application program, such that the cacheable application program is wholly cached by the caching computing device caching the cacheable application program component [Page 4, paragraphs 0037 and paragraph 0049].

As per claim 43, Raz et al teach the system of claim 41, wherein the client computing device is further to cache at least one cacheable application program component from the original

computing device and execute the at least one component for itself [Page 4, paragraphs 0037-0041 and paragraph 0049].

As per claim 45, Raz et al teach the system of claim 41, wherein the original computing device is also communicatively connected to the network [Fig. 3].

As per claim 46, Raz et al teach the system of claim 41, wherein the original computing device is communicatively connected to a second network, the caching computing device also communicatively connected to the second network [Fig. 3].

As per claim 47, the claim includes similar limitations addressed in claims 1, 15 and 28 above. Therefore, it is rejected with the same rationale.

As per claim 48, Raz et al teach the method of claim 47 further comprising providing results of executing the application program or the component thereof from the caching computing device to the client computing device [Page 2, paragraphs 0015-0019].

Claims 6,13-14,23-27 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raz et al US. Pub.(20020138640) in view of Bittinger et al USPN. (5859971) and further in view of Eylon et al US Pub. (20010034736).

As per claim 6, although Raz et al and Bittinger et al show substantial features of the claimed invention as explained above in claims 1,15 and 28, they do not explicitly show tracking client computing device usage of a cacheable application program component to which the application program component request relates.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the system disclosed by Raz et al and Bittinger et al, as evidenced by Eylon et al US Pub. (20010034736).

In analogous art, Eylon et al whose invention is about a method for executing network streamed applications, disclose a system which tracks client computing device usage pattern of cacheable application program component based upon information gathered from user interaction with the application [page 2, paragraph 0020 & 0035 and Page 7, paragraphs 0065].

Giving the teaching of Eylon et al, a person of ordinary skill in the art would have readily recognized the desirability and the advantage of modifying Raz et al and Bittinger et al by employing the system of Eylon et al in order to determine an optimal order in which to send application program component to a client [Page 7, paragraph 0065].

As per claim 6, Eylon et al teach the invention further comprising:

assessing whether the usage is sufficient to justify caching

of the cacheable application program component by the caching computing device 0016 [Pages 2&3, paragraphs 0020 & 0035 and Page 4, paragraphs 0038-41]; and,

caching the application program component at the caching computing device in response to a determination that the usage is sufficient to justify caching [Page 4, paragraphs 0035 and 0038-41].

As per claim 13, see the rejection made on claim 6 above.

As per claim 14, see the rejection made on claim 3 above.

As per claim 23, Eylon et al teach machine-readable medium having instructions stored thereon for execution by a processor of a computing device to perform a method comprising:

tracking usage by a client computing device of cacheable application program component of an application program stored on an original computing device relate [Pages 2&3, paragraphs 0020 & 0035 and Page 7, paragraphs 0065-0066; see claim 6 above for further explanation];

assessing whether or not the usage is sufficient to justify caching any of the cacheable application program components from the original computing device [Page 3, paragraph 0035 and Page 4, paragraphs 0038-41]; and

caching any of the application program components from the original computing device that the usage of which has been assessed as sufficient to justifying caching [Page 3, paragraph 0035 and Page 4, paragraphs 0038-41].

As per claim 24, Raz et al teach the medium of claim 23, wherein the application program consist of one or more cacheable components, such that the entire application program can be cached [Page 4, paragraphs 0037 and paragraph 0049].

As per claim 25, Raz et al teach the medium of claim 23, wherein caching any of the application program components comprises downloading one or more installation files from the original computing device [Page 4, paragraphs 0037-0040].

As per claim 26, Raz et al teach the medium of claim 23, wherein the computing device is a client computing device [Fig. 2, clients 220-240].

As per claim 27, Raz et al teach the medium of claim 23, wherein the computing device is a caching computing device [Fig. 2, clients 180 and 190].

As per claims 34-36, see the rejection made on claims 6 and 23 above.

As per claim 37, Raz et al teach the device of claim 36, wherein the caching component is to cache any of the application program components by downloading one or more installation files from the original computing device [Page 4, paragraphs 0037-0040].

Conclusion

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 703-305-5971. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 703-305-9717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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